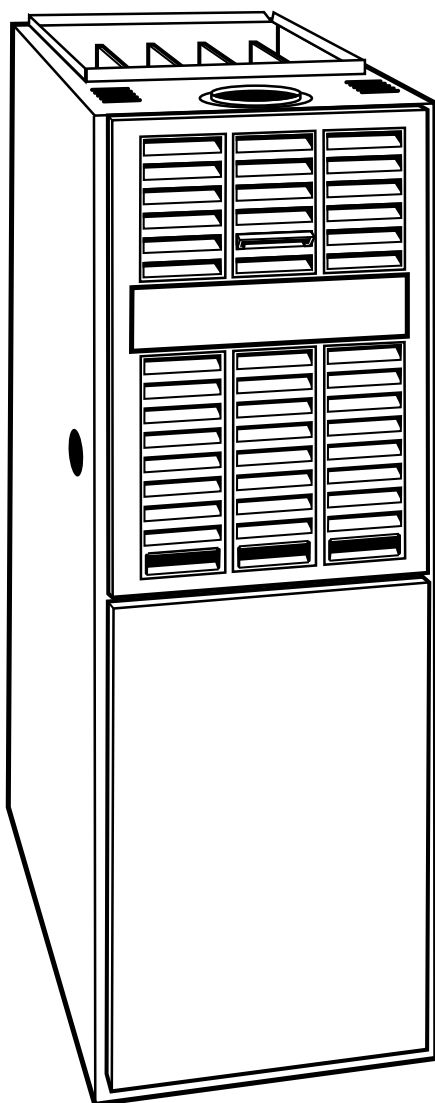




## Product Data

# 58GFA High-Efficiency Induced-Combustion Upflow Furnace

Heating Inputs:  
65,000 — 150,000 Btuh



### 78% AFUE With Continuous-Pilot Ignition

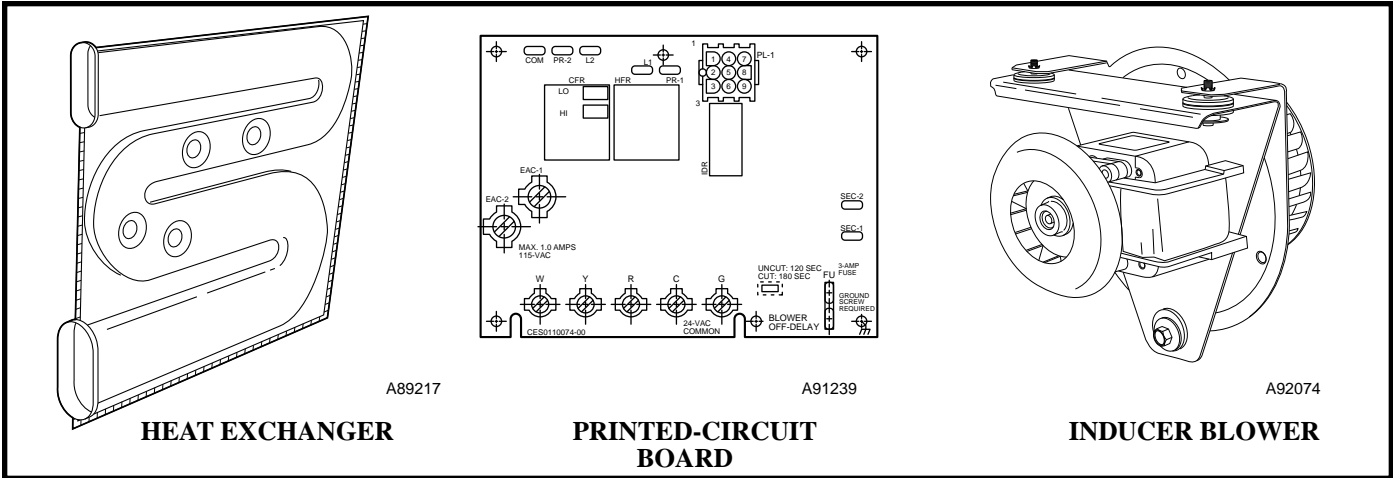
Carrier is the first manufacturer to provide a 78% Annual Fuel Utilization Efficiency (AFUE) gas furnace for the budget conscious consumer and builder. The 58GFA offers the same high quality you demand from Carrier.

The superior attention to cabinet detail is obvious. The Carrier 58GFA features 1-piece, seamless, wrap-around construction. There are no spot welds on the exterior surfaces of the furnace. There is also double protection for the cabinet. First, a galvanized steel substrate provides resistance to rusting; then the cabinet is constructed of prepainted steel — the same high-quality finish found on refrigerators and dishwashers.

The 58GFA offers a proven continuous-pilot ignition system which provides superior reliability.

Carrier's patented Super-S heat exchanger improves heat transfer and enables downsizing of this furnace to only 40 in. tall. It is covered by a 10-year heat exchanger Limited Warranty.

The solid-state control board is the brain of this induced-combustion gas furnace. The control board features a 3-amp fuse which protects the 24-v control transformer.

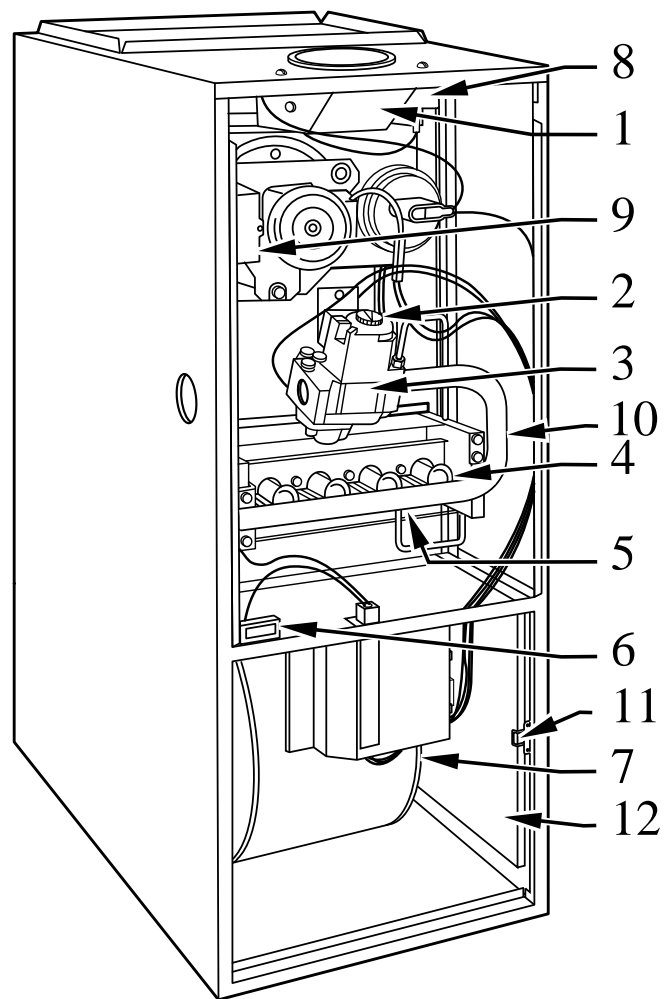


**MEETS DOE RESIDENTIAL CONSERVATION SERVICES PROGRAM STANDARDS.**

Before purchasing this appliance, read important energy cost and efficiency information available from your retailer.

## Model number nomenclature

Induced-Combustion Upflow Furnace		58GFA	065	120	08
<b>Input Capacity</b> 065 — 63,000 Btuh 086 — 84,000 Btuh 105 — 105,000 Btuh			130 — 126,000 Btuh 150 — 147,000 Btuh		<b>Cooling Size (Airflow)</b> (400 CFM per 12,000 Btuh) 08 — 800 CFM 12 — 1200 CFM 14 — 1400 CFM 16 — 1600 CFM 20 — 2000 CFM 22 — 2200 CFM
				<b>Series Number</b>	



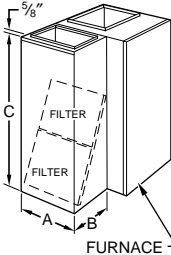
A94257

**NOTE:** The 58GFA Furnaces are for use with natural gas. These furnaces can be field converted for propane gas with a factory-authorized and listed accessory conversion kit.

**NOTE:** Control location and actual control may be different than shown above.

- |   |                                      |
|---|--------------------------------------|
| ① Relief Box                              | ⑦ Blower and Blower Motor            |
| ② Gas Valve Control Knob (On, Pilot, Off) | ⑧ Draft Safeguard Tube and Switch    |
| ③ Gas Control Valve                       | ⑨ Rating Plate (Behind Junction Box) |
| ④ Gas Burner                              | ⑩ Gas Manifold                       |
| ⑤ Pilot Burner and Thermocouple           | ⑪ Filter Retainer                    |
| ⑥ Blower Door Safety Switch               | ⑫ Air Filter                         |

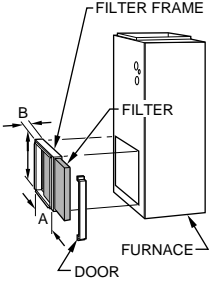
# Carrier accessories\*



**RETURN-AIR PLENUM**

Custom-made return-air plenum can be mounted on either side of the furnace. Includes washable filters.

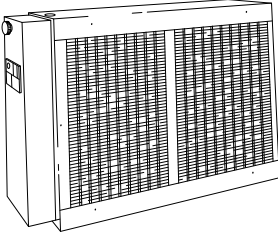
A	25 in.
B	16 in.
C	39-7/8 in.



**SIDE FILTER RACK**

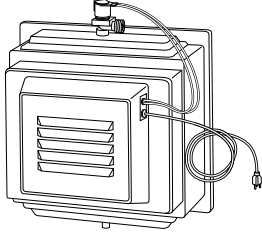
Custom made filter rack for easy connection when a return plenum already exists. Provides easy access for cleaning filter.

A	23-1/8 in.
B	2-3/8 in.
C	14-1/2 in.



**MODEL 31KAX ELECTRONIC AIR CLEANER**

Cleans the air of smoke, dirt, and many pollens commonly found in the air. Saves decorating and cleaning expenses.



**MODEL 49FH HUMIDIFIER**

By adding moisture to winter-dry air, a Carrier humidifier can often improve the comfort and keep furniture, rugs, and draperies in better condition. Moisturizing household air also helps to retain normal body heat and provides comfort at lower temperatures.

UNIT SIZE	065-08 & 12	086-14 & 16	105-12, 16, & 22	130-16 & 20	150-20
ELECTRONIC AIR CLEANER	Model 31KAX				
HUMIDIFIER	Model 49FH				
THERMOSTAT	See Master Price Page 99TZ				
RETURN-AIR PLENUM (With Washable Filters)	KGARP0101ALL				
SIDE FILTER RACK (With Washable Filter)	KGAFR0106ALL				
TWINNING KIT	KGATW0501STP				
GAS CONVERSION KIT — NATURAL-TO-PROPANE	KGANP1801STP				
PROPANE-TO-NATURAL	KGAPN1301STP				

\*Factory authorized and field installed. Gas conversion kits are A.G.A. recognized.

## Physical data

UNIT SIZE		065		086		105			130		150
		08	12	14	16	12	16	22	16	20	20
OUTPUT CAPACITY BTUH†	Nonweatherized ICS**	51,000	51,000	67,000	68,000	85,000	85,000	84,000	101,000	101,000	119,000
INPUT BTUH*		63,000	63,000	84,000	84,000	105,000	105,000	105,000	126,000	126,000	147,000
SHIPPING WEIGHT (lb)		126	128	143	147	153	159	176	171	186	196
CERTIFIED TEMP RISE RANGE (°F)		35-65	25-55	35-65	30-60	45-75	35-65	30-60	50-80	35-65	45-75
CERTIFIED EXT STATIC PRESSURE (in. wc)	Heating	0.12	0.12	0.15	0.15	0.20	0.20	0.20	0.20	0.20	0.20
	Cooling	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
AIRFLOW CFM‡	Heating	830	1175	1150	1445	1175	1415	1720	1385	1975	1670
	Cooling	950	1300	1335	1655	1210	1575	2210	1545	1980	1935
LIMIT CONTROL		SPST									
HEATING BLOWER CONTROL		Solid-State Time Operation									
BURNERS (Monoport)		3	3	4	4	5	5	5	6	6	7
GAS CONNECTION SIZE		1/2-in. NPT									
GAS VALVE (Redundant) Manufacturer		Honeywell									
Minimum Inlet Pressure (in. wc)		4.5 (Natural Gas)									
Maximum Inlet Pressure (in. wc)		13.6 (Natural Gas)									
IGNITION DEVICE		Thermocouple-Type Continuous Pilot									

\* Gas input ratings are certified for elevations to 2000 ft. For elevations above 2000 ft, reduce ratings 4% for each 1000 ft above sea level.

† Tentative capacity and AFUE in accordance with U.S. Government DOE test procedures.

‡ Air delivery above 1800 CFM requires that both sides, or a combination of 1 side and bottom, of the furnace be used for return air. A filter is required for each return-air supply.

\*\* Isolated Combustion System



## ENERGY EFFICIENCY

UNIT SIZE		065		086		105			130		150
		08	12	14	16	12	16	22	16	20	20
<b>CAPACITY*</b>	<b>Nonweatherized ICS†</b>	51,000	51,000	67,000	68,000	85,000	85,000	84,000	101,000	101,000	119,000
<b>AFUE %*</b>	<b>Nonweatherized ICS†</b>	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0

\* Tentative capacity and AFUE in accordance with U.S. Government DOE test procedures.

† Isolated Combustion System

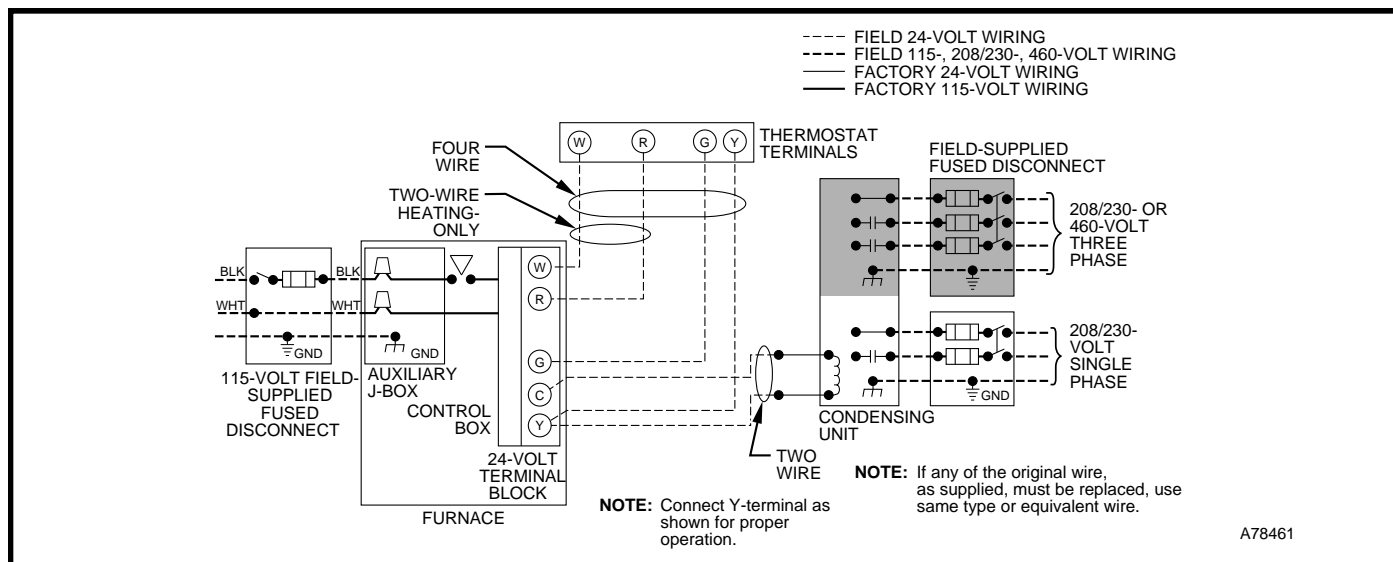
## AIR DELIVERY — CFM (WITH FILTER)\*

UNIT SIZE	SPEED	EXTERNAL STATIC PRESSURE (IN. WC)							
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8
<b>065-08</b>	High	—	1055	1030	995	950	900	830	750
	Med-High	—	830	810	790	750	720	665	580
	Med-Low	700	680	660	635	605	555	505	445
	Low	600	575	550	520	475	450	400	340
<b>065-12</b>	High	—	1485	1430	1365	1300	1220	1140	1045
	Med-High	—	1355	1305	1260	1200	1135	1055	960
	Med-Low	1175	1170	1140	1110	1055	1005	950	860
	Low	1020	1015	995	970	930	885	825	745
<b>086-14</b>	High	1585	1540	1470	1410	1335	1220	1110	980
	Med-High	1355	1325	1280	1230	1175	1090	1015	910
	Med-Low	1150	1125	1105	1085	1035	965	895	786
	Low	960	950	935	910	880	815	715	580
<b>086-16</b>	High	1940	1875	1745	1730	1655	1545	1420	1315
	Med-High	1665	1605	1575	1545	1490	1405	1300	1170
	Med-Low	1460	1430	1395	1355	1325	1260	1165	1080
	Low	1260	1240	1235	1215	1185	1115	1045	935
<b>105-12</b>	High	1490	1435	1370	1300	1210	1135	1020	880
	Med-High	1375	1325	1265	1195	1125	1055	945	810
	Med-Low	1205	1175	1130	1075	1025	925	830	675
	Low	1045	1020	1000	960	905	820	700	565
<b>105-16</b>	High	1880	1815	1745	1690	1575	1500	1400	1265
	Med-High	1660	1615	1570	1505	1435	1355	1260	1170
	Med-Low	1455	1410	1375	1350	1290	1235	1145	985
	Low	1265	1265	1240	1210	1180	1110	995	855
<b>105-22</b>	High	2475	2405	2330	2265	2210	2130	2040	1945
	Med-High	2055	2025	2000	1965	1930	1865	1795	1720
	Med-Low	1725	1720	1705	1685	1665	1630	1585	1525
	Low	1500	1515	1510	1500	1480	1460	1415	1370
<b>130-16</b>	High	1850	1785	1710	1630	1545	1430	1320	1185
	Med-High	1635	1595	1540	1480	1400	1300	1185	1065
	Med-Low	1420	1385	1360	1295	1245	1165	1080	970
	Low	1225	1200	1180	1145	1105	1055	990	870
<b>130-20</b>	High	—	2210	2130	2055	1980	1895	1795	1680
	Med-High	2015	1975	1925	1880	1805	1735	1655	1555
	Med-Low	1730	1710	1670	1635	1590	1535	1470	1385
	Low	1525	1520	1495	1450	1410	1375	1315	1245
<b>150-20</b>	High	2220	2155	2105	2025	1935	1850	1765	1670
	Med-High	1980	1920	1875	1815	1760	1700	1625	1530
	Med-Low	1690	1670	1645	1615	1570	1520	1415	1385
	Low	1445	1435	1425	1405	1365	1325	1280	1225

\* Air delivery above 1800 CFM requires that both sides, or a combination of 1 side and bottom, or bottom only of the furnace be used for return air. A filter is required for each return-air supply.

— Indicates unstable operating conditions.

# Typical wiring schematic



## Electrical data

UNIT SIZE	065-08	065-12	086-14	086-16	105-12	105-16	105-22	130-16	130-20	150-20
UNIT VOLTS—HERTZ—PHASE	115 — 60 — 1									
MINIMUM WIRE SIZE	14	14	14	14	14	14	12	14	12	12
MAXIMUM WIRE LENGTH* (Ft)	41	34	33	28	37	29	33	29	36	35
MAXIMUM UNIT AMPS	7.1	8.7	9.0	10.4	8.0	10.1	14.4	10.1	13.3	13.7
OPERATING VOLTAGE RANGE† (Min — Max)	104 — 127									
MAXIMUM FUSE SIZE OR HACR-TYPE CKT BKR‡ (Amps)	15	15	15	15	15	15	20	15	20	20
TRANSFORMER (24v)	40VA									
EXTERNAL CONTROL POWER AVAILABLE	21VA									
Heating	21VA									
Cooling	32VA									
AIR CONDITIONING BLOWER RELAY	Standard									

\* Length shown is as measured 1 way along wire path between unit and service panel for maximum 2% voltage drop.

† Permissible limits of the voltage range at which the unit will operate satisfactorily.

‡ Time-delay fuse is recommended.

# Typical installations

